examined him and prescribed drugs and advised hospitalization. In all these cases the treatment was interrupted by the arrest of the addicts and later by the discontinuance of the treatment by the defendant.

I think that the evidence clearly shows not the case of a physician who looks for gain—in violation of that high ethical standard which should govern physicians—and, for profit, seeks to capitalize his knowledge by preying upon unfortunate addicts. I have nothing but contempt for that kind of physician. We here have a situation, as I see it, of a city medical department establishing a narcotic clinic and finding that it resulted in evil; and that the law enforcement authorities objected to it. closing it down and then this physician being asked-by the medical authorities to take over the work. There is no disputing the fact that Doctor Parrish asked the defendant to take over the work of the clinic and that he was paid by the city. It seems to me, Gentlemen, that under these circumstances to find that a physician who did so violated a law, merely because from the viewpoint of the law enforcement authorities, he was not so careful as he might have been with reëxaminations, and in issuing drugs to persons who, in their opinion, should be hospitalizedwould do violence to the very spirit of the law; and to the very spirit of fairness which we must always read into the interpretation of any penal statute of the United States, as expressing that idea which is so prominent in the American people, the desire for fair play. It would mean that we might ask a person to do a thing and then say, "I am sorry, but you have committed an offense."
That does not mean, of course, that a person might not be guilty of an offense although he followed the advice of the City medical authorities in such matters. I think he could be. It is not the law that a medical officer can give an absolution of criminal offenses any more than it is a law that the enforcement officers can, by placing their own interpretations on the law, create an offense which does not exist. But a physician is not punishable under this law, unless, under all the evidence in the case, he is shown to be guilty of bad faith, and has failed to follow accepted medical practice.

Can we say that a physician, who, at the behest of State authorities or City authorities took over the treatment of narcotic addicts, who supplemented the clinical record which he knew existed by his own examination, and administered drugs for a period of a few weeks, while he was treating each of these persons, is guilty of bad faith, and violates proper medical practices? The answer must be in the negative. Any other interpretation would make us dogmatic arbiters of the medical profession and would do harm to the anti-narcotic cause.

The conclusion I have expressed is made more imperative by the fact that we have expert medical testimony to the effect that the treatment which the defendant administered was proper under the circumstances and conformed, as one physician, Dr. Ross Moore, said, even to the high professional ideal of the Hippocrates oath. This oath makes it the duty of a physician to relieve suffering and to use his own judgment in so doing. He should not be punished when living up to it.

This applies to the three "clinic" cases. As to the "non-clinic" case—the case of Tint—I believe the evidence shows that the prescription was warranted. went to the defendant because he understood from those who had attended the city clinic that it had been taken over by him. But whether we tie him to the clinic or not, the fact remains that he was and had been an addict over a long period of time; that he had been given narcotic prescriptions by others; that he was first refused by the defendant and that hospitalization was advised. The fact that Tint is cured now after long incarceration in a penitentiary especially equipped to deal with narcotism, should not be considered in determining whether the treatment was proper at the time. As to Mayers, Jensen and Avery, the evidence shows that the drug was withdrawn from them while they were in jail, by a physician who had no previous experience along these lines. But they have since returned to the habit, except as for such time as it was taken away from them during incarceration. Ultimately, however, even if the result was not what was expected, the question to determine is not whether the judgment

used was good or bad, but whether the defendant believed, in all these cases, that the treatment he administered was proper by ordinary medical standards. The evidence supports the conclusion that he did so believe. Here, the evidence-exclusive of the defendant's own defense of his actions-warrants the conclusion that the practice was proper.

For the reasons indicated I find the defendant not guilty of any of the offenses with which he is charged in the four indictments. Exception to the Government.

Dated this 23rd day of June, 1936.

LEON R. YANKWICH, U. S. District Judge.

## THE LURE OF MEDICAL HISTORY†

## MEDICAL CONDITIONS, PRACTICES, AND FOUNDATIONS IN THE CONTINENTAL COLONIES\*

By HAROLD HANZLIK† San Mateo, Calif.

PART I

"NTRODUCTION.—According to Oliver Wendell Holmes, "The state of medicine is an index of the civilization of an age and country—one of the best, perhaps, by which it can be judged." This opinion is almost directly applicable to the situation existing in the early American colonies. The struggle of medicine, just like that of other vital parts of the American colonies, had to overcome superstitions, a partnership with priesthood, and false philosophies. All these obstacles had to be conquered, dissolved, or eliminated before the means which nature and art have put in the hands of physicians could be brought to practical use. Nothing brings to light the superstition of an age more than the treatment and interpretation of disease of those early times. With these thoughts in mind, it is the object of this paper to discuss the prevailing, and sometimes appalling, conditions and practices among the small group of settlements known as the Continental Colonies of America, and the resultant developments for medicine.

The period to be discussed covers a span of some 180 years in this country, that is, between the years 1620 and 1800. It was the period when in Europe great universities were being founded and important medical discoveries made. The University of Edinburgh had been chartered, and it was here that the leading colonial physicians were trained. Human dissection was being revived, the University of Edinburgh having built its first anatomical theater in 1697. Descartes had published the first treatise on physiology. The Reverend Stephen Hales had, for the first time, measured the blood pressure in a horse in 1726. He also produced dropsy by injecting water into the veins. The first clinics for poor patients were organized in Prague in 1745. Lavoisier had discovered oxygen in 1775, and shown its importance

<sup>†</sup>A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

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in breathing. Among the most important of all medical developments was the discovery of the circulation of the blood by that immortal physician, William Harvey, in 1628. Europe at that time was no doubt a long jump ahead of the American colonists, who admittedly labored under great handicaps and disadvantages. However, it will be presently shown that, despite all obstacles, they were not found wanting, and that they and theirs laid the foundations of lasting and permanent benefits to medicine and to humanity throughout the world. They caught up with and passed the Europeans.

## IN THE DAYS OF THE PILGRIM FATHERS

Let us turn to the Pilgrim Fathers, and consider first the state of their early settlement. It seems that these weary travelers were beseiged by many diseases, some of a fatal nature. Many medical historians are inclined to believe that the climate disagreed with these travel-worn souls. In all probability this was true, since the older physicians wrote considerably about the prevalence of the common cold, pleurisy, and pneumonia, which, no doubt, were caused by the extremes of climate in the eastern states. The colonists were plagued with one disease in particular, namely, scurvy. They had neglected to bring along the fruits and products which contain the necessary vitamins for the prevention of scurvy. Consequently, many of them died before reaching land, and some died even after they had landed. Those who landed at Cape Cod, after the long journey from England, were a forlorn lot of gaunt and hungry creatures longing for fresh food. They found "great mussels, and very fat and full of sea pearl" (Packard). Both passengers and sailors indulged liberally in this dangerous delicacy, and soon these way-worn travelers were treated to a gastric remembrance of the "heaving billows," now gratefully behind them. The food was not only unpalatable, but it made them generally ill. Nevertheless, the Pilgrim Fathers had to subsist on this food, with the result that the scurvy increased alarmingly. Had it not been for the discovery of some wild berries and grapes they might have all perished. As it was, many died: in December six died; in January, eight; in February, seventeen; and in March, thirteen. With the coming of spring the mortality rapidly diminished. The little community, depleted of able-bodied men, and with many of the living crippled and sick, nevertheless took heart and started building. They had to commence from the ground up; almost everything seemed lacking, even good health, without which there can be nothing.

Undoubtedly one of the most pressing needs of these early settlers was medical attention and sanitation. In Savage's "Genealogical Dictionary of First Settlers Before 1692 and Their Descendants," there are scattered throughout the names of 134 practitioners of the healing art. Of these, twelve professed, but probably many more practiced, surgery, since there were also barbersurgeons. It is interesting to note that the practice of medicine, or "physic," was only a sideline, or avocation, with these individuals. Their main

business or work was something else. For instance, one man was a schoolmaster and poet; one kept a tavern and practiced "physic." One was a butcher, but called himself a "surgeon," and, doubtless, the connection with his real profession was not far remote. One female practitioner "employed by her own sex—Ann Moore—was one of the more noted midwives" (Mumford). It was a motley lot of talent, much of it crude and amateurish, and a danger to the little community.

## MEDICAL PRACTICES AND PRACTITIONERS DURING THE COLONIAL PERIOD

A student of history might inquire into the doctrines, theories, or practices of healing which these colonists brought with them. There were two principal schools of thought in the Old World at this time, and to one of these the colonists did not subscribe. This one was the old philosophy of Galen based on the theory that the body was made up of four main elements, namely, fire, air, water, and earth, which possessed the qualities hot, dry, moist, and cold. In order to be in perfect health, a man had to keep these qualities in equal proportion to each other. Diseases, which had as their cause an excess of heat, were quieted by cooling remedies; those originating with an excess of cold, by heating remedies, and so on. The leading principle of the Galenists was this: "Disease is to be treated by anything that is proved to cure it" (Holmes). The cures employed by the Galenists consisted chiefly of diets and vegetable remedies, with the use of a lancet or other devices of similar nature. If the Galenists lived today, they would probably be called "herb doctors." These practices were eventually discredited, due to the nauseating concoctions, and the absurdly complicated mixtures, which sometimes were worse than the disease.

The other, or chemical, school of healing was a much simpler idea, and depended chiefly on the use of mineral remedies, such as sulphur, mercury, antimony, and arsenic, with a secret use of opium at times. This school did much to replace the old, repulsive herbal concoctions with more agreeable and effective remedies. It was this school that the New England fathers followed. The prescriptions of their physicians contained a few potent drugs. In one of the manuscripts sent to Governor Winthrop, in 1643, by a certain Doctor Stafford, the following prescription was included: "... for yellow Jaundise—Boyle a quart of sweet milke, dissolve therein as much bag-salt, or fine Salpeter, as shall make it brackish in taste; and putting Saffron in a fine linen clout, rubb it into ye Milke, untill ye Milke be very yellow; and give it ye patient to drinke" (Packard). This example is cited in order to show that the remedies prescribed for the colonists consisted mostly of simple chemical and household ingredients.

The most common practice, however, among the colonial physicians was blood-letting. For every disease or injury the physician would "let blood," sometimes to a point of near exhaustion. There is a written account of this practice by Doctor Fuller, who was one of the earlier colonists and also one of the best physicians, to Governor William Bradford, dated June, 1630, in which he indicates its scope during one of the many malarial epidemics. He states, "I have been to Dorchester, and let some twenty of these people blood." For once this blood-letting might have helped the patient, although weak and exhausted, because malaria is a disease of the blood, and by removing blood the patient was freed of the microorganisms causing the illness. Nevertheless, a great many of the colonists succumbed to this disease, and even the physicians themselves were not spared.

It is interesting to note that one of these colonial physicians was more successful in teaching his colleagues and influencing public opinion than he was in the practice of his art. He was Dr. Giles Firmin, who practiced "physic" (medicine) in the colonies for a time, but it seems that business was none too good. For, in a letter to Governor Winthrop, he writes that he will study divinity because "physick is but a meene helpe." Be that as it may, Doctor Firmin's lectures and dissections in anatomy were the first real scientific medical teaching in the New World. While many of the colonists regarded this as nonpuritanical practice, the New Englanders were broad-minded enough to allow the teaching of anatomy. The Puritans were, nevertheless, severe in dealing with quackery. For, in 1631, one Nicholas Knopp was fined fifty pounds and sentenced to be whipped for "taking upon him to cure the scurvy by a water of noe worth or value, which he sold at a very deare rate." If such a rule were enforced today, there would be quite a number of sore backs and not a few of their owners with empty purses. Such unscrupulous men as these, the decent colonial doctors were forced to combat continuously. As a result there were formed organizations of medical practitioners which eventually developed into the medical societies of Philadelphia, Massachusetts, New York, and Maryland. An interesting purpose of the constitution of one of these organizations was that the community might be benefited by such a union of doctors. Accordingly, a meeting was held in 1765 by the doctors of the Philadelphia Medical Society to "consider and report matters relative to physic." The society considered several papers upon subjects which were of fundamental importance to medical practice at that time. Some of these were: "Dissertation on Causes, Nature and Treatment of Apoplexy," "On Consumption," "An Essay on Virtues and Uses of Several Substances in Medicine, that are The Native Growth in America" (Norris). The last paper dealt with remedies prescribed for such plagues as smallpox, insanity, broken bones, fevers, and king's evil. The remedies were such humble and innocuous herbs and vegetables as St. John's wort, maiden hair, parsley, and elder. All these were considered curatives, and most of the physicians prescribed them religiously. However, these were not the only remedies in use; there were also mechanical devices. For instance, as early as 1634, a Dr. John Clark mentions the use of the trephine as a surgical instrument for cutting round pieces of bone out of broken skulls. While trephining is a very old operation, and is said to have been practiced by some Indians, it seems that colonial physicians were not overlooking anything which added to their skill, although they must have made this operation without anesthesia, which came later.

From what has been said, the New England physician of Colonial times may be regarded as a cross between an herbalist, a pharmacist, and a surgeon. This gives a fair idea of a combination of superstition and crude empiricism inflicted on a patient who fell into the hands of an intelligent and somewhat educated physician of the middle seventeenth century. Governor Winthrop of New England himself was a fair example of a seventeenth century physician, although not a trained medical man. His great remedy was nitre, which he ordered in doses of 20 to 30 grains for adults, and of 3 grains for infants. Measles, colic. sciatica, headache, and other ailments were all treated with nitre, and many patients were undoubtedly improved. For nitre was a pretty safe medicine in moderate doses for patients naturally recovering anyway, and one not likely to keep the good governor awake at nights. He also gave sulphur and antimony, along with the very harmless "powder of coral," less frequently a dose of powdered amber, and sometimes, as a last resort, a dose of cowhage, which caused a fearful upset of the stomach and intestines.

(To be continued)

Conversational Gems of Dr. J. P. Widney\*
Founder of the Los Angeles County Medical Association:
At Age of Ninety-Five Still Active in Literary
and Church Work

Ambition without ability is a very doubtful mental asset.

For the young man, the diploma simply opens the door. It is the man that has to go in.

No man ever yet expressed in words exactly what was in his mind. Words are clumsier than thoughts.

Controversy kills conversation.

When you have reached the top of the hill, there is nothing higher.

Make everybody love you. How shall I do this? By loving everybody. Love begets love.

Perhaps the mental unrest in the world is bearing fruit in the climate.

One cannot buy youth in a drug store.

The poor lives are not those who have not money, but those who do no work.

Cultivate the habit of saying pleasant things. It smooths the pathway of life.

Nations are made—not born.

Real prosperity will return when people quit working for a fortune and begin working for a living.

The desert is the lungs and the life of the world. The only way to check debt is to destroy credit.

Socialism—we ate our cake—you saved yours. Now, divide your cake with us.

Wealth is a heavy handicap to a young man. Adjectives are the filigree work of literature.

There are people who are never happy until they have burnt their fingers.

In every business partnership some one man has to be the firm.

Forget yourself, but be yourself. This is where individuality comes in.

(To be continued)

<sup>\*</sup>Compiled by Rebecca Davis Macartney.
Previous excerpts from the Macartney Compilation were printed in the July issue (page 61).